MIAMI-DADE COUNTY, FLORIDA REQUEST FOR DESIGN-BUILD SERVICES FOR THE CONSTRUCTION OF SOUTH DISTRICT WASTEWATER TREATMENT PLANT AND CENTRAL DISTRICT WASTEWATER TREATMENT PLANT SLUDGE THICKENING AND DEWATERING BUILDINGS ISD PROJECT NO. DB16-WASD-01

The County Mayor, Miami-Dade County, pursuant to the Miami-Dade Water and Sewer Department (WASD) Consent Decree and Capital Improvement Programs Acceleration Ordinance Section 2-8.2.12, Chapter 287.055, Sections 2-8.1 and 2-10.4 of the Miami-Dade County Code, Implementing Order 3-34, and Administrative Order 3-39, announces that the Miami-Dade Water and Sewer Department will require one (1) qualified Design-Builder to provide design and construction services for Consent Decree (CD) Projects 1.06, 1.08, South District Wastewater Treatment Plant (SDWWTP) Sludge Thickening and Dewatering Building and the CD Projects 2.12, 2.13, 2.16, 2.18(2), Central District Wastewater Treatment Plant (CDWWTP) Sludge Thickening and Dewatering Building

Miami-Dade County has entered into a Consent Decree (United States District Court for the Southern District of Florida, Case No. 1:12-cv-24400-FAM, hereinafter referred to as "Consent Decree") with the United States, Environmental Protection Agency, the State of Florida, and Florida Department of Environmental Protection (FDEP) (collectively "Regulatory Agencies"), to remediate its aging wastewater infrastructure. This Project is intended to satisfy the requirements identified in the Consent Decree (CD) as CD Projects 1.06, 1.08, 2.12, 2.13, 2.16, and 2.18(2). The full text of the CD is available online at:

http://www.miamidade.gov/water/library/reports/consent-decree/consent-decree-signed.pdf

It is the intention of the Miami-Dade Water and Sewer Department (WASD) to contract Design-Build services for the construction of both facilities described below. The Design-Builders shall respond to the Request for Design-Build Services by addressing the Scope of Work that includes the CD Projects 1.06, 1.08, South District Wastewater Treatment Plant (SDWWTP) Sludge Thickening and Dewatering Building and the CD Projects 2.12, 2.13, 2.16, 2.18(2), Central District Wastewater Treatment Plant (CDWWTP) Sludge Thickening and Dewatering Building. The Design-Builder shall be familiar with and comply with the requirements of the CD.

The Design Criteria Professional, MWH Americas, Inc. and the following subconsultants are not eligible to render Design-Build services for this solicitation: Architects International, Inc.; BND Engineers, Inc.; CDM Smith Inc.; and Geosol Inc. Pursuant to Florida Statutes 287.055, "A Design Criteria Professional who has been selected to prepare the design criteria package is not eligible to render services under a Design-Build contract executed pursuant to the Design Criteria Package." The County reserves the right to disqualify any proposal from a team which includes any subconsultant and/or individual who has played a substantial role in the development of the Design Criteria Package or whose involvement with the Design-Build team would confer upon that team an unfair competitive advantage because of such subconsultant's or member's prior involvement in the Project.

SCOPE OF SERVICES – CD PROJECTS 1.06 and 1.08 SDWWTP SLUDGE THICKENING AND DEWATERING BUILDING

The Design-Builder shall provide all resources and professional services to perform the planning, engineering design, coordination with Water and Sewer Operations, permitting, construction, furnishing of all materials, fabrication and installation, labor and equipment necessary for the construction of all civil/site, process mechanical, architectural, structural, electrical, instrumentation, plumbing, Heat Ventilation Air Conditioning (HVAC), fire protection, odor control components and all other necessary components to facilitate successful design, construction and commissioning of the new Sludge Thickening and Dewatering Building located at 8950 S.W. 232 Street, Miami, FL 33190. The SDWWTP has an average annual daily flow (AADF) of 112.5 million gallons per day (MGD).

The Design-Builder shall follow the Design Criteria Package inclusive of CD design standards for the development of this Project. The minimum design life shall be twenty (20) years for major electrical and mechanical equipment, with the exception of Variable Frequency Drives (VFDs) that shall have a design life of fifteen (15) years. Structures shall have a minimum design life of fifty (50) years. The Project shall consist of the following main elements:

- 1. A combined Sludge Thickening and Dewatering Building to house the sludge thickening system, the digested sludge dewatering system and other engineering features to support the thickening and dewatering process. Support systems to include dry polymer feed and storage (for both thickening and dewatering sludge), polymer dosage optimization system, dewatered cake pumping and storage, cake conveyance, Thickened Waste Activated Sludge (TWAS) pumping, thickening and dewatering centrate pumping, mono-rails, bridge crane, truck load-out facilities for dewatered cake, provisions for future cake transfer to proposed biosolids management facilities (provided by others), plant service water and sewer systems, other ancillaries required for a completely functional facility.
- 2. The building shall be in precast concrete with cast-in-place concrete columns and shall be designed to meet all local and State building code requirements. The building shall be two (2) stories high, the finished floor elevation shall comply with WASD "Design Guide for Hardening Wastewater Treatment Facilities against Flooding from Surge, Sea Level Rise and Extreme Rainfall", and the footprint shall be approximately 150 ft. by 140 ft. Features shall include an operations and control room, break room, locker rooms and bathrooms, industrial facility freight elevator, electrical room, mechanical room, loading and unloading areas, chemical storage and feeding areas, storage areas, and operator parking area. The building exterior shall be insulated and exterior should include architectural features and theme similar to adjacent facilities onsite.
- 3. Thickening system consisting of six (6) centrifuges. Centrifuges should be suitable for unmanned operations.
- 4. Digested sludge dewatering system consisting of four (4) centrifuges. Centrifuges should be suitable for unmanned operations.
- 5. Controls and instrumentation equipment, including programming, reliability demonstration, performance testing.
- 6. Connection to onsite power supply.
- 7. Electrical room to include transformers, feed conduits, and duct banks, to serve the proposed Sludge Thickening and Dewatering Building, is to be an external room attached to the building's south wall. The DESIGN-BUILDER is required to coordinate electrical duct bank routing and connections design with WASD Operation and Maintenance and adhere to CD design standards, including generation of duct bank plan and profile drawings.

- 8. Associated electrical equipment, including but not limited to, arc-flash switchgear, Motor Control Centers (MCCs), electrical accessories, conduits and feeders and duct banks.
- 9. Odor control system for the facility using bio-filters. This system shall be designed to treat the air produced by the process, equipment, thickened sludge and centrate wet-wells, as well as the cake transfer bin and cake storage silos.
- 10. Ferric sulfate chemical storage and feed system for struvite control.
- 11. Dry polymer system for the thickening process.
- 12. Dry polymer system for the dewatering process.
- 13. Sludge holding bin, to include light bottom storage silo with at least two (2) discharge points.
- 14. Climate control and ventilation system appropriate for the facility.
- 15. Piping and connections associated with:
 - a. Centrate
 - b. Potable water
 - c. Non-potable / flushing water
 - d. Sewer service
- 16. Sludge conveyance of:
 - a. Waste Activated Sludge (WAS) to the proposed Thickening and Dewatering Building.
 - b. TWAS from the proposed Thickening and Dewatering Building to the acid phase digesters or secondary digesters
 - c. Digested sludge from the existing digester system to the Thickening and Dewatering Building.
- 17. Access roads and parking areas for operations, maintenance, and sludge hauling.
- 18. Demolition of existing dewatering facility at a separate location within the SDWWTP and ancillary components to an elevation of five (5) feet below ground level. This includes the capping/sealing of abandoned pipes and survey locations.
- 19. Demolition of existing pavement and drainage at proposed site location.

SCOPE OF SERVICES – CD PROJECTS 2.12, 2.13, 2.16, and 2.18(2) CDWWTP SLUDGE THICKENING AND DEWATERING BUILDING

The Design-Builder shall provide all resources and professional services to perform the planning, engineering design, coordination with Water and Sewer Operations, permitting, construction, furnishing of all materials, fabrication and installation, labor and equipment necessary for the construction of all civil/site, process mechanical, architectural, structural, electrical, instrumentation, plumbing, HVAC, fire protection, odor control components and all other necessary components to facilitate successful design, construction and commissioning of the new dewatering/thickening facilities located at the CDWWTP, located at 3989 Rickenbacker Causeway, Key Biscayne, FL 33149. The CDWWTP has an AADF of 143 MGD.

The Design-Builder shall follow the Design Criteria Package inclusive of CD design standards for the development of this Project. The minimum design life shall be twenty (20) years for major electrical and mechanical equipment, with the exception of Variable Frequency Drives (VFDs) that shall have a design life of fifteen (15) years. Structures shall have a minimum design life of fifty (50) years. The Project shall consist of the following main elements:

 A combined thickening and dewatering building to house the sludge thickening system, the digested sludge dewatering system and other engineering features to support the thickening and dewatering process. Support systems to include dry polymer feed and storage (for both thickening and dewatering sludge), polymer dosage optimization system, dewatered cake

pumping and storage, cake conveyance, Thickened Waste Activated Sludge (TWAS) pumping, thickening and dewatering centrate pumping, monorails, bridge crane, truck load-out facilities for dewatered cake, provisions for future cake transfer to proposed biosolids management facilities (provided by others), plant service water and sewer systems, other ancillaries required for a completely functional facility.

- 2. The building shall be in precast concrete with cast-in-place concrete columns and shall be designed to meet all local and State building code requirements. The building shall be two (2) stories high, the finished floor elevation shall comply with WASD "Design Guide for Hardening Wastewater Treatment Facilities against Flooding from Surge, Sea Level Rise and Extreme Rainfall", and the footprint shall be approximately 175 ft. by 175 ft. Features shall include an operations and control room, break room, locker rooms and bathrooms, industrial facility freight elevator, electrical room, mechanical room, loading and unloading areas, chemical storage and feeding areas, storage areas and operator parking area. The building exterior shall be insulated and exterior should include architectural features and theme similar to adjacent facilities onsite.
- 3. Thickening system consisting of eight (8) centrifuges. Centrifuges should be suitable for unmanned operations.
- 4. Digested sludge dewatering system consisting of four (4) centrifuges. Centrifuges should be suitable for unmanned operations.
- 5. Controls and instrumentation equipment, including programming, reliability demonstration, performance testing.
- 6. Dedicated electrical substation building to include transformers, feed conduits, and duct banks, to serve the proposed Sludge Thickening and Dewatering Building as shown in the preliminary contract drawings. The Design-Builder is required to coordinate electrical duct bank routing and connections design with WASD operation and maintenance, and adhere to CD design standards, including generation of duct bank plan and profile drawings.
- 7. Associated electrical equipment, including but not limited to, arc-flash switchgear, Motor Control Centers (MCCs), electrical accessories/conduits and feeders, and duct banks.
- 8. Dedicated biological odor control system for the facility using bio-filters. This includes centrifuges, dewatered cake storage and unloading operation, thickened sludge and centrate wetwells and WAS feed/blending tanks.
- 9. Ferric sulfate chemical storage and feed system for struvite control.
- 10. Dry polymer system for the thickening process, including approximately 5,000 gallon water tank.
- 11. Dry polymer system for the dewatering process, including approximately 5,000 gallon water tank.
- 12. Three (3) sludge holding bins to include light bottom storage silo with at least four (4) discharge points per silo.
- 13. Two (2) sludge blending tanks of approximately 105,000 gallons each.
- 14. Climate control and ventilation system appropriate for the facility.
- 15. Sludge conveyance of:
 - a. Sludge received from the North District Wastewater Treatment Plant from existing pipelines entering the site to the proposed Sludge Thickening and Dewatering System.
 - b. Waste Activated Sludge (WAS) from the existing return activated sludge pipelines at the CDWWTP facilities to the proposed Sludge Thickening and Dewatering System.
 - c. TWAS from the proposed Sludge Thickening and Dewatering Building to the existing digesters system.
 - d. Digested sludge from the existing digesters system to the proposed Thickening/Dewatering facilities.
- 16. Pump station facility with underground wet well with three (3) (N+1) submersible non-clog pumps, approximately 25 horse power each, to receive approximately 1600 gpm of screened

sludge, inclusive of power supply and electrical ancillary equipment. Design- Builder is required to coordinate electrical duct bank routing and connections design with WASD O&M, and adhere to CD design standards, including generation of duct bank plan and profile drawings.

- 17. Load cells for each silo.
- 18. Grading, paving and drainage of the thickening and dewatering building and adjacent areas.
- 19. Demolition of existing pavement, drainage and re-grading at proposed site location and ancillary components to an elevation of five (5) feet below ground level.

LIQUIDATED DAMAGES CD PROJECTS 1.06 and 1.08 SDWWTP SLUDGE THICKENING AND DEWATERING BUILDING CD PROJECTS 2.12, 2.13, 2.16, and 2.18(2) CDWWTP SLUDGE THICKENING AND DEWATERING BUILDING

This project is mandated by a Consent Decree which has established construction schedule milestones that are critical for completion of this construction contract. These milestones have either "Consent Decree Liquidated Damages", "Contract Liquidated Damages" or both associated with them.

For the purpose of satisfying Construction Completion, the definition of "Substantial Completion" contained in this contract shall be modified to include the definition of "Construction Completion" as defined below. In the event of a conflict between these two definitions, the more restrictive definition shall apply.

Construction Completion shall mean completion of construction and installation of equipment or infrastructure such that the equipment or infrastructure has been placed in operation, and is expected to both function and perform as designed. This specifically includes all control systems and instrumentation necessary for normal operations and all residual handling systems are in place and operational. Miscellaneous items related to construction activities, such as restoration of surrounding areas or installation of other items not necessary for the equipment or infrastructure to function and perform as designed, is not required to be completed prior to Miami-Dade Water and Sewer Department certifying that the project has met Construction Completion.

Contract Liquidated Damages

Liquidated Damages for the timely completion of this contract shall be as specified in the General Terms and Conditions, Article 8 "Contract Time", paragraph F "Liquidated Damages and Liquidated Indirect Costs" and shall be set at a maximum of \$5,000 per day, including weekends and holidays, which sum is a fair and reasonable sum for all indirect costs as may be borne by the County due to the Contractor exceeding the Construction Time of the Contract and represents the actual damages which the County will have sustained per day by failure of the Contractor to complete the work within said specified times, it being agreed that said sum is not a penalty but is the stipulated amount of damage sustained by the County in the event of such *default by the Contractor*. Failure to complete work on or before Substantial Completion Milestones per the table below shall result in Liquidated Damages.

Milestones	Description	Duration	Damages
1A	Substantial Completion for CD 1.06, 1.08 SDWWTP	793	Contract Liquidated Damages
1B	Final Completion for CD 1.06, 1.08 SDWWTP	853	

2A	Substantial Completion for CD 2.12, 2.13, 2.16, 2.18(2) CDWWTP	876	Contract Liquidated Damages
2B	Final Completion for CD 2.12, 2.13, 2.16, 2.18(2) CDWWTP	936	

NOTE: The above Liquidated Damages are specifically related to Contract Time. Additional Liquidated Damages may be incurred as noted elsewhere in this contract.

Consent Decree Liquidated Damages

Miami-Dade County has entered into a Consent Decree (United States District Court for the Southern District of Florida, Case No. 1:12-cv-24400-FAM, herein referred to as Consent Decree) with the United States, Environmental Protection Agency, the State of Florida, and Florida Department of Environmental Protection (FDEP) (collectively "Regulatory Agencies"), to remediate its aging wastewater infrastructure. This project is intended to satisfy the requirements identified in the Consent Decree as CD Project CD 1.06, 1.08, 2.12, 2.13, 2.16, and 2.18(2). The full text of the Consent Decree is available online at:

http://www.miamidade.gov/water/library/reports/consent-decree/consent-decree-signed.pdf

The CD provides that the Regulatory Agencies may impose stipulated penalties against Miami-Dade County for failure to meet the above deadline and for certain Sanitary Sewer Overflows (SSOs). In the event the Regulatory Agencies impose such penalties against Miami-Dade County, and such penalties are a result of the Design-Builder's lack of performance, failure to meet Construction Completion or a SSO that occurs during construction, the Design-Builder shall be liable to the County for such amounts as additional LD ("Consent Decree Liquated Damages") ("CDLD"). Please note these CDLD are in addition to the LD as specified previously and may be assessed separately and/or in combination with contract LD.

(a) Failure to complete work on or before Construction Completion per table below shall result in CD LD as listed below.

CD Project No.	Construction Completion Date
1.06	September 24, 2022
1.08	November 28, 2019
2.12	April 23, 2021
2.13	October 23, 2019
2.16	August 7, 2021
2.18	July 9, 2020

Period of Noncompliance per Violation per Day

One (1) to fourteen (14) days	\$1,000
Fifteen (15) to thirty days (30) days	\$2,000
Thirty one (31) to sixty (60) days	\$3,000
Sixty one (61) to one hundred eighty (180) days	\$4,000
More than one hundred eighty (180) days	\$5,000

(b) CDLD for each SSO reaching waters of the United States due to a release of wastewater caused by Design-Builder may be assessed as:

Description	Before 4/09/2019	After 4/09/2019
1 to 10,000 gallons	\$1,000	\$1,000
10,000 to 250,000 gallons	\$2,000	\$4,000
250,000 to 1,000,000 gallons	\$5,000	\$10,000
Greater than 1,000,0000 gallons	\$10,000	\$20,000

(c) CDLD for each SSO NOT reaching waters of the United States due to a release caused by Design-Builder may be assessed as:

Description	Before 4/09/2019	After 4/09/2019
1 to 10,000 gallons	\$500	\$500
10,000 to 250,000 gallons	\$1,000	\$2,000
250,000 to 1,000,000 gallons	\$2,500	\$5,000
Greater than 1,000,0000 gallons	\$5,000	\$10,000

PROJECT COST

The duration of the proposed Design-Build contract is 1,789 calendar days. The total maximum compensation for the Design-Build contract is **\$148,325,000**, which includes the following:

- \$121,914,000 estimated construction cost
- \$ 9,143,000 estimated engineering and architecture services
- \$ 6,096,000 construction contingency fee (5%)
- \$ 915,000 engineering contingency fee (10%)
- \$ 6,600,000 dedicated allowance
- \$ 3,657,000 permitting fees (3%)

A/E TECHNICAL CERTIFICATION REQUIREMENTS

The firms providing these services must be certified in the following technical categories and the respective percentages of the disciplines as indicated below:

A/E TECHNICAL CERTIFICATION REQUIREMENTS

TECHNICAL CATEGORY		TOTAL PERCENTAGE	
(TC)	DESCRIPTION	TC (%)	SBE %
6.03 Lead A/E	Water and Sanitary Sewer Systems – Water and Sanitary Sewage Treatment Plants	25%	0%
11.00 Lead A/E	General Structural Engineering	12%	0%
16.00 Lead A/E	General Civil Engineering	10%	0%
17.00 Lead A/E	Engineering Construction Management	10%	0%
12.00 Other	General Mechanical Engineering	5%	3%
13.00 Other	General Electrical Engineering	25%	2%
9.02 Other	Soils, Foundations and Materials Testing- Geotechnical and Materials Engineering Services	3%	3%
9.03 Other	Soils, Foundations and Materials Testing- Concrete and Asphalt Testing Services	1%	1%
10.00 Other	Environmental Engineering	3%	3%
14.00 Other	Architecture	5%	5%
15.00 Other	Surveying and Mapping	1%	1%
	TOTAL	100%	18%

Minimum Experience and Qualifications

The proposed Design-Builder shall demonstrate its Project team experience by presenting the qualifications and capabilities of each Design-Build Team member firm, for projects completed within the last ten (10) years from the date of this solicitation, including projects that may be at least fifty percent (50%) complete prior to the required submission date of this Request Design-Build Services Step one (1) solicitation, that demonstrate related minimum project experience as indicated below.

Qualifications and Experience of the Design-Builder, Lead Constructor, and Lead Designer

- 1) The Design-Builder shall demonstrate that it has performed and/or managed as a Prime contractor or Design-Builder for the construction of at least three (3) wastewater process projects in wastewater treatment plants with rated capacity of not less than fifty (50) million gallons per day (MGD), of comparable scope and complexity, with at least one (1) project consisting of the thickening and/or dewatering process.
- 2) The Lead Constructor must have constructed at least three (3) process facilities of similar size, scope and complexity in wastewater treatment plants.

- 3) The Lead Designer must have designed at least one (1) wastewater process projects with rated capacity of not less than fifty (50) MGD of comparable scope and complexity, and one (1) project consisting on the thickening and/or dewatering process.
- 4) The Subconsultant(s) to the Designer-Builder or Lead Designer providing services must demonstrate to have project experience at least one (1) project that was completed involving the main project element for which the Subconsultant(s) is being proposed.
- 5) Additional Preferred Project Experience and Past Performance: Design-Build Team shall receive higher qualification scores from the Competitive Selection Committee (CSC) if their submitted project experience and past performance can demonstrate the following:
 - a) Listed projects are of similar or greater size and level of complexity.
 - b) Any listed projects of the proposed Design-Builder entity were designed and constructed through design-build project delivery.
 - The Lead Constructor and Lead Designer have worked together on previous projects and executed successfully.
 - d) Listed projects demonstrate experience in thickening and dewatering technologies.
 - e) Listed projects demonstrate experience in construction within active operational sites without interruption of services.
 - f) Key Personnel, most significantly the proposed Project Manager, Design Manager and Construction Manager, have served on the Projects listed and their client reference can validate that performance.
- 6) Industry Experience of Design-Build Team Key Personnel: The qualifications and industry experience referenced in this section must be met by qualified individual(s) of the Design-Build Team and its Subconsultants. The experience must be demonstrated by direct or substantial involvement of the individual(s) in a capacity that is equivalent to or exceeds the stated minimum requirement. The determination of the individual(s) qualifications and compliance with the experience and qualifications shall be at the sole discretion of the County and the CSC. The CSC may negatively evaluate proposals from firms they determine have failed to meet the required experience and qualification(s):
 - 1) Minimum fifteen (15) years total industry experience of which five (5) years are in a similarly responsible position for each of the following Key Personnel listed below:
 - Design-Build Project Manager
 - Lead Designer-Design Manager
 - Lead Mechanical Engineer
 - Lead Electrical Engineer
 - Lead Constructor- Construction Manager
 - Construction Superintendent
 - Lead Structural Engineer
 - Lead Geotechnical Engineer
 - Permitting/Compliance Manager
 - Design-Builder Quality Assurance/Quality Control (QA/QC) Manager
 - Design-Builder Safety Manager
 - Project Lead Estimator
 - 2) Key Personnel must demonstrate experience with the type work to be performed.

- 3) Proposers shall identify, in their Statement of Qualifications those State of Florida registered Professional Engineers who will sign and seal construction plans and specifications.
- 4) Key Personnel resumes shall indicate the individuals' current firm association, their professional qualifications, a minimum of one client reference with contact information, and their role and duration on each project for which they are being credited the related experience.

7) Additional Preferred Experience and Past Performance:

- 1) Experience in significant role on a design-build project, especially in a similar role as proposed for this Project.
- 2) Superior references with regard to meeting cost, schedule, and quality objectives on previous projects, and maintaining a positive client relationship.

8) <u>Design-Builder Safety Record - Past Performance</u>:

Minimum past performance as reflected by a three (3) year average for the last three (3) previous full years of the Experience Modification Rate (EMR) for the Design-Builder shall not exceed 1.10 for each firm.

The Design-Builder shall provide EMR data for the previous three (3) full calendar years (2013, 2014, and 2015) on a firm-wide basis and shall be documented by a signed letter with contact information from the firm's insurance carrier, or the insurance carrier's agency representative. Higher qualifications score shall be provided by the CSC for a Design-Builder demonstrating an average EMR lower than other competing Design-Builder firms. Design-Builder shall also provide their OSHA forms 300 and 300A for the last three (3) full calendar years indicating OSHA submitted accident data for evaluation by the CSC as to their frequency and severity.

9) Ability of Design-Builder and Team to interface with the County:

1) Design-Builder Proposer will provide a narrative of not more than three (3) single side 8-½" X 11" pages, in not less than Arial 11-pt font and 3/4-inch margins, that explains how the Design-Builder and Team members can efficiently interface with the County and the Water and Sewer Department in a timely and effective manner with respect to items such as regular and emergency communications, submittals, meeting attendance, commercial issues and other project related activities.

The expertise must be met by a qualified individual(s) of the Design-Builder Team. The experience must be demonstrated by direct or substantial involvement of the individual(s) in a supervisory capacity at the Project Manager level or above. The determination of the individual's qualifications and compliance with the experience and qualifications shall be at the sole discretion of the County. The CSC may negatively evaluate proposals from firms they determine have failed to meet the above experience and qualification(s).

CONTRACT MEASURES

WASD is recommending an 18.00% SBE-A/E, 7.88% SBE-Construction, 1.00% SBE-G&S

END OF DOCUMENT